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NEWS 4   DEC 23   New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/
                   USPAT2
NEWS 5   JAN 13   IPC 8 searching in IFIPAT, IFIUDB, and IFICDB
NEWS 6   JAN 13   New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to
                   INPADOC
NEWS 7   JAN 17   Pre-1988 INPI data added to MARPAT
NEWS 8   JAN 17   IPC 8 in the WPI family of databases including WPIFV
NEWS 9   JAN 30   Saved answer limit increased
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                   visualization results
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NEWS 13   FEB 22   The IPC thesaurus added to additional patent databases on STN
NEWS 14   FEB 22   Updates in EPFULL; IPC 8 enhancements added
NEWS 15   FEB 27   New STN AnaVist pricing effective March 1, 2006
NEWS 16   FEB 28   MEDLINE/LMEDLINE reload improves functionality
NEWS 17   FEB 28   TOXCENTER reloaded with enhancements
NEWS 18   FEB 28   REGISTRY/ZREGISTRY enhanced with more experimental spectral
                   property data
NEWS 19   MAR 01   INSPEC reloaded and enhanced
NEWS 20   MAR 03   Updates in PATDPA; addition of IPC 8 data without attributes
NEWS 21   MAR 08   X.25 communication option no longer available after June 2006

NEWS EXPRESS   FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,
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               AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
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    * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

=> s (gamma-type pyridoxal phosphate enzymes)
         805911 GAMMA
           4916 GAMMAS
         806071 GAMMA
                 (GAMMA OR GAMMAS)
        1658769 TYPE
         574761 TYPES
        2103189 TYPE
                 (TYPE OR TYPES)
          13514 PYRIDOXAL
             54 PYRIDOXALS
          13520 PYRIDOXAL
                 (PYRIDOXAL OR PYRIDOXALS)
         537851 PHOSPHATE
         125764 PHOSPHATES
         586208 PHOSPHATE
                 (PHOSPHATE OR PHOSPHATES)
         442972 ENZYMES
L1   0 (GAMMA-TYPE PYRIDOXAL PHOSPHATE ENZYMES)
                 (GAMMA(W)TYPE(W)PYRIDOXAL(W)PHOSPHATE(W)ENZYMES)

=> s (pyridoxal phosphate enzymes)
          13514 PYRIDOXAL
             54 PYRIDOXALS
          13520 PYRIDOXAL
                 (PYRIDOXAL OR PYRIDOXALS)
         537851 PHOSPHATE
         125764 PHOSPHATES
         586208 PHOSPHATE
                 (PHOSPHATE OR PHOSPHATES)
         442972 ENZYMES

```
L2              82 (PYRIDOXAL PHOSPHATE ENZYMES)
                   (PYRIDOXAL(W)PHOSPHATE(W)ENZYMES)

=> s L2 and uncinatum
               263 UNCINATUM
L3               0 L2 AND UNCINATUM

=> s L2 and alkaloid
             53415 ALKALOID
             67894 ALKALOIDS
             81309 ALKALOID
                   (ALKALOID OR ALKALOIDS)
L4               0 L2 AND ALKALOID

=> s neotyphodium and L2
               192 NEOTYPHODIUM
L5               0 NEOTYPHODIUM AND L2

=> s l2 and fungal
             48730 FUNGAL
                 8 FUNGALS
             48734 FUNGAL
                   (FUNGAL OR FUNGALS)
L6               0 L2 AND FUNGAL

=> s Spiering
                 7 SPIERING
                 2 SPIERINGS
L7               9 SPIERING
                   (SPIERING OR SPIERINGS)

=> d 1-9 abs,so,ti
```

L7   ANSWER 1 OF 9   HCAPLUS   COPYRIGHT 2006 ACS on STN
AB   Single-mol. fluorescence resonance energy transfer and functional assays
      have been used to study the initiation and regulation of the bacteriophage
      T4 DNA replication system. Previous work has demonstrated that a complex
      of the helicase loading protein (gp59) and the DNA polymerase (gp43) on
      forked DNA totally inhibits the polymerase and exonuclease activities of
      gp43 by a mol. locking mechanism (Xi, J., Zhuang, Z., Zhang, Z., Selzer,
      T., **Spiering**, M. M., Hammes, G. G., and Benkovic, S. J. (2005)
      Biochem. 44, 2305-2318). We now show that this complex is "unlocked" by
      the addition of the helicase (gp41) with restoration of the DNA polymerase
      activity. Gp59 retains its ability to load the helicase while forming a
      gp59-gp43 complex at a DNA fork in the presence of the single-stranded DNA
      binding protein (gp32). Upon the addition of gp41 and MgATP, gp59 dissocs.
      from the complex, and the DNA-bound gp41 is capable of recruiting the
      primase (gp61) to form a functional primosome and, subsequently, a fully
      active replisome. Functional assays of leading- and lagging-strand
      synthesis on an active replication fork show that the absence of gp59 has
      no effect on the coupling of leading- and lagging-strand synthesis or on
      the size of the Okazaki DNA fragments. We conclude that gp59 acts in a
      manner similar to the clamp loader to ensure proper assembly of the
      replisome and does not remain as a replisome component during active
      replication.
SO   Biochemistry (2005), 44(21), 7747-7756
      CODEN: BICHAW; ISSN: 0006-2960
TI   Interaction between the T4 Helicase Loading Protein (gp59) and the DNA
      Polymerase (gp43): Unlocking of the gp59-gp43-DNA Complex to Initiate
      Assembly of A Fully Functional Replisome

L7   ANSWER 2 OF 9   HCAPLUS   COPYRIGHT 2006 ACS on STN
AB   The name of the sixth author, Barry A. **Spiering**, was misspelled.

SO   Medicine & Science in Sports & Exercise (2004), 36(2), 349
     CODEN: MSPEDA; ISSN: 0195-9131
TI   Effect of muscle oxygenation during resistance exercise on anabolic
     hormone response. [Erratum to document cited in CA140:193472]

L7   ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AB   The Monte Carlo entropic sampling method previously presented is adapted
     here to an Ising-like system with short- and long-range interactions.
     Such model is suited to spin crossover solids where the long interaction
     is due to elastic coupling mediated by the lattice, while the short-range
     interaction originates from the bonding between the spin crossover units
     [J. Linares, H. **Spiering**, F. Varret, Eur. J. Phys. B 10(1999)
     271]. Taking into account the different degeneracies gHS for high-spin
     (HS) and gLS for low-spin (LS) states, the Ising Hamiltonian associated with
     fictitious spins is written:$H=-h\Sigma\sigma i-J\Sigma\sigma i\sigma j$ with
     $h = -\Delta 2+kBT \ln gHSgLS2+G<\sigma>$ where J and G are
     the short- and long-range interactions, resp., and Δ the energy gap
     of ligand field such that the LS state is the ground state. The numerical
     method was tested successfully by comparison to the exact solution for a
     1-dimensional system: [Fe(Htrz)2(trz)](BF4)2 []. The authors describe
     here the results obtained for 2-dimensional systems, and show that the
     squareness of the thermal hysteresis loop, associated with the
     spin-transition, can be correlated to the strength of short-range
     interactions.
SO   Polyhedron (2003), 22(14-17), 2453-2456
     CODEN: PLYHDE; ISSN: 0277-5387
TI   Monte Carlo entropic sampling applied to spin crossover solids: the
     squareness of the thermal hysteresis loop

L7   ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AB   The phenomenon of thermal spin crossover in iron(II) complexes has been
     subject to vigorous research activities in recent years, with the ultimate
     goal of eventual tech. applications in switching and display devices. The
     changes of spin states with accompanying drastic changes in magnetic and
     optical properties upon variation of temperature or application of pressure or
     irradiation with light has been explored extensively, particularly in view of
     the cooperative interactions playing a decisive role in the solid state
     /1/. Remarkable progress has been made in the design and preparation of new
     spin crossover materials, new photophys. effects have been observed, studies
     of the spin transition behavior under pressure have yielded astonishing
     new results, structural investigations at variable temperature and after
irradiation
     with light have permitted deeper insight into the lattice events
     accompanying the mol. switching processes. Some of the new results will
     be highlighted in this report. /1/ P. Gutlich, A. Hauser, H.
     Spiering, Angew. Chemical Int. Ed. Engl. 1994, 33, 2024-2054.
SO   Book of Abstracts, 219th ACS National Meeting, San Francisco, CA, March
     26-30, 2000 (2000), INOR-176 Publisher: American Chemical Society,
     Washington, D. C.
     CODEN: 69CLAC
TI   New highlights in spin crossover studies.

L7   ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AB   In theory, the hydration thermodn. approach used for control of glass
     production in the Defense Waste Processing Facility should be applicable to
     virtually any situation in which glass is allowed to react with an aqueous
     medium. In this paper, the general approach has been modified for
     application to glass etching by aqueous HF. Using measurements made by G.
     Spierings (1991), who etched a wide variety of silicate and
     borosilicate compns. in 2.9 M HF, excellent agreement is found between the
     theory and the exptl. measurements.
SO   Ceramic Transactions (1998), 87(Environmental Issues and Waste Management
     Technologies in the Ceramic and Nuclear Industries III), 489-497

TI   Thermodynamic approach to glass etching by HF

AB   An Ising-type model for spin conversion, explicitly accounting for
     intramol. vibrations was studied. Each two level system is associated with p
     harmonic oscillators having two possible frequencies $\omega(i)LS$,
     $\omega(i)HS$. The major advantage of this model is that it provides an
     excellent agreement with both the conversion curve and calorimetric data,
     in particular the entropy change upon spin conversion. With the help of
     Arrhenius plots, the predictions of the model are accurately compared to
     the literature exptl. data on the spin equilibrium curves. A very accurate
     Moessbauer study by Jacobi, **Spiering** and Gutlich, provides
     evidence for a small effect typical for vibrations. A novel example is
     given where the conversion curve is essentially monitored by vibrations;
     this originates from the extremely small value of the energy gap between
     HS and LS electro-vibrational ground states. However, in most cases, as a
     ·1st approach, the low frequency approximation of the model can be used. Then
     the model reduces to a simple two-level model with addnl. degeneracies
     implicitly accounting for intramol. vibrations.
SO   Journal de Physique I (1995), 5(6), 747-60
TI   A simple Ising-like model for spin conversion including molecular
     vibrations

AB   The thermodn. and kinetics of the HS .dblharw. LS equilibrium in the iron(II)
     spin-crossover complexes [Fe(2-pic)3](PF6)2(2-pic = 2-
     aminomethylpyridine), and [Fe(6-mepy)3tren](PF6)2((6-mepy)3tren =
     tris[4-[(6-methyl)-2-pyridyl]-3-aza-3-butenyl]amine) were studied by
     pressure dependent Moessbauer spectroscopy. The rate consts. for the HS
     .dblharw. LS intersystem crossing are determined by lineshape anal. of
     Moessbauer spectra. The evaluation and the essential features of
     quadrupole-quadrupole relaxation spectra are discussed. From thermodn.
     anal. of the HS fractions the intermol. interaction consts. Γ and
     the volume changes of the lattice ΔVc associated with the spin-transition
     are derived. In [Fe(2-pic)3](PF6)2, which shows a very gradual
     spin-transition, Γ vanishes and a small $\Delta Vc = 8Å3$ is
     found. For [Fe(6-mepy)3tren](PF6)2, which shows a steep spin-transition,
     $\Gamma = 197$ cm-1 and $\Delta Vc = 25Å3$ are derived. The activation
     energy of the exothermic HS → LS conversion is pressure independent
     for the pic-complex, but decreases with increasing pressure for the
     tren-complex. This is a consequence of different activation vols.
     $\Delta VHL\pm$. For [Fe(6-mepy)3tren](PF6)2 $\Delta VJL\pm = -22Å3$
     was estimated The thermodn. and kinetic results are discussed within the
     lattice expansion model of H **Spiering** et al. (1982) who treated
     the lattice influence on the spin state conversion.
SO   Journal of Physics and Chemistry of Solids (1989), 50(6), 587-97
TI   Thermodynamics and kinetics of spin state conversion processes studied by
     pressure dependent Moessbauer spectroscopy

AB   A polemic with C. Srikantappa, C. Raith, and B. **Spiering** (ibid.,
     1985, 26, 249-72). At the Kabbaldurga area (India), H2O-fluid inclusions
     dominate the amphibolite-facies rocks. Since no partial melting took
     place, the structural and metamorphic setting of the Ponmudi charnockites
     are quite different from the Kabbaldurga occurrence, where partial melting
     was important. A body the size of the Closepet granite is unlikely to
     have originated by K metasomatism. The Closepet-type granites did not
     intrude only after charnockitization of gneisses. Fluid conditions must
     be studied to determine whether the influx of CO2 was oxidizing or reducing.
SO   Journal of the Geological Society of India (1988), 31(1), 166-71

CODEN: JGSIAJ; ISSN: 0016-7622
TI   Progressive charnockitization of a leptynite-khondalite suite from Kerala,
      India. Evidence for formation of charnockites through decrease in fluid
      pressure? Comment

L7   ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AB   A polemic. The results reported by **Spierings** and Stein (ibid.
      1975, 6, 265) on the effect of Na2O on hydration of C3A [12042-78-3]
      indicate that the authors are not aware of a series of (5) papers
      published by P. Gupta et. al.
SO   Cement and Concrete Research (1977), 7(1), 105
      CODEN: CCNRAI; ISSN: 0008-8846
TI   A discussion of the paper "The influence of sodium oxide on the hydration
      of C3A. I. Paste hydration", by G. A. C. M. **Spierings** and H.
      N. Stein